

# Evaluation Plan

## University of Massachusetts Boston (UMB), Online Conversations for Equity, Action, and Networking (OCEAN) Program



**Designed by Graduate Students of Northeastern University**  
**School of Public Policy & Urban Affairs**  
Course 6509: Techniques of Program Evaluation

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## **Program Background**

The University of Massachusetts-Boston (UMB) is an urban public research university that provides a dynamic culture of teaching and learning for students and staff. The university's mission includes a unique commitment to local and global engagement. Fulfillment of this mission includes addressing social issues on local and global levels and engaging with metropolitan communities for the betterment of public health.

In furtherance of this mission, Kelly Luis, the Principal Investigator, along with Co-Investigators Patrick Sheldon, Christine San Antonio, Shannon Davis, Lucy Lockwood, Lee Mabry, Dira Johanif, Patrick Sheldon, Tania Pluomi, Isaac Rosenthal, and Michael Roy will be implementing a virtual program for the 2020-2021 school year. This grant-funded program titled "Online Conversations for Equity, Action, and Networking" (OCEAN) will be a webinar and podcast series aiming to reach early-career Black, Indigenous, People of Color marine researchers, and professionals in Massachusetts.

## **Program Context**

The goal of Online Conversations for Equity, Action, and Networking (OCEAN) is to amplify the voices of early-career Black, Indigenous, People of Color (BIPOC) researchers and professionals in the field of marine research in Massachusetts. The program involves a series of webinars, podcasts and conversations where early-career BIPOC marine researchers and professionals share their research with undergraduate and graduate students in science, technology, engineering, and mathematics (STEM) fields, at the University of Massachusetts-Boston.

The program includes three components: department seminars where OCEAN speakers will present their research, podcasts featuring the OCEAN speakers, and conversations between students and OCEAN speakers on their career paths and experiences in the environmental field. Seminars and conversations will be open to UMB staff and students. The podcasts will serve as a resource, available to the UMB community and the general public, to initiate and support discussions about the role of race, diversity, equity, and inclusion in marine sciences. This program will allow participants an opportunity to engage in safe spaces that encourage discussion among a supportive network.

Like many other fields, the racial and ethnic composition of marine science and STEM fields have sparsely changed over the years. This lack of diversity is due in part to systemic biases, weak school-to-career pipelines for BIPOC, and inaccessibility. OCEAN, however, hopes to help decrease these barriers of entry for BIPOC in marine research. By creating a space for BIPOC to develop leadership skills and share experiences, OCEAN will provide necessary resources and awareness on biases, inequities, inclusions, and role modeling in the STEM fields. This allows for growth in networking among BIPOC marine researchers in the Commonwealth and increased visibility, which supports the inclusion of BIPOC at all stages of career development.

OCEAN is funded by the Woods Hole Sea Grant program, based at the Woods Hole Oceanographic Institution. The grant is intended for programs impacting environmental literacy and workforce development research. According to their website, the Woods Hole Oceanographic Institution supports research, education and extension projects that encourage long-term economic development and responsible use of the nation's coastal and ocean resources. The Woods Hole Sea Grant program was established to award funding to projects

aiming to promote a strong educational base, responsive research, training activities, and prompt dissemination of knowledge and techniques. It also encourages marine science programs, that serve people with unique backgrounds, circumstances, needs, perspectives, and ways of thinking.

As a pilot program beginning its implementation phase at UMB, the OCEAN investigators requested a formative evaluation. The purpose of the evaluation is to create a plan to determine whether the program activities were implemented as intended, whether the target audience was reached and to measure the experience of the supporting staff. This formative evaluation will be the precursor to the summative evaluation which will determine whether the program achieved its goals of increasing visibility for early-career BIPOC researchers and professionals in marine sciences, augmenting environmental literacy and increasing the self-efficacy of BIPOC students pursuing STEM careers.

OCEAN will utilize the evaluation to provide data and feedback for the program leaders and staff. In addition, OCEAN seeks to include a program evaluation in its final report to the Sea Grant. The evaluation will also aid future decisions related to OCEAN's goals and illuminate potential modifications to their future implementations of this project.

### **Key Stakeholders**

The first key stakeholder in this evaluation is the UMB student body. These students will be participants and supporting staff in the program activities. Within this student body is the target group which are BIPOC marine science students. This subgroup is the intended beneficiary of the OCEAN program.

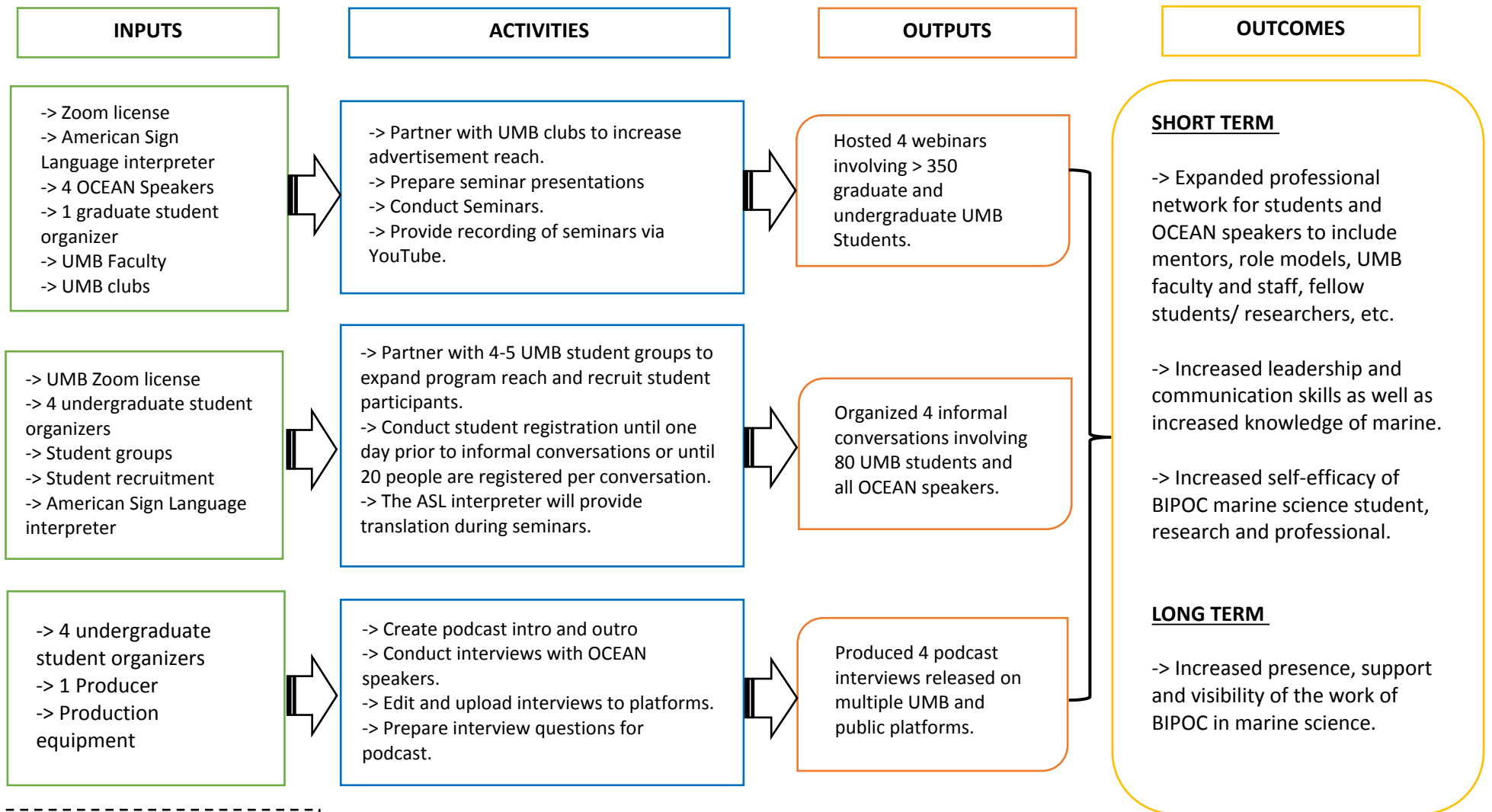
Another key stakeholder in this evaluation is the program's funding partners, the Woods Hole Oceanographic Institution. Those providing financial support to the program are interested in evidence of the program's effectiveness in executing program activities and achieving the program's objectives. If the financial stakeholders are convinced OCEAN has delivered on its objectives, the program will receive future funding through the Woods Hole Sea Grant.

UMass-Boston is also a key stakeholder in this evaluation as the program is being implemented within the UMB community. This program has the potential to enhance the experience for BIPOC students attending UMB and establish lasting infrastructure to aid marginalized groups within the UMB community.

The final key stakeholders in this evaluation are the OCEAN investigators. The investigators will be using the information from this evaluation to inform future changes in the OCEAN program. They will also be using this evaluation to identify the need for additional resources such as staffing and funds.

### **Logic Model**

The logic model, shown below, demonstrates the programs theory of change. It provides a visual of the shared relationships among the inputs, activities, outputs and outcomes of the OCEAN program, and its intended effects. This offers the OCEAN staff, program beneficiaries, and other interested persons a common understanding of how the program intends to work and the responsibilities tied to each component of the program experience.



**UMB, OCEAN Logic Model**

OCEAN is a program focused on increasing the visibility and presence of BIPOC marine science professionals and creating a safe space to foster opportunities for BIPOC marine science students at UMB.

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**ASSUMPTIONS**

- > BIPOC marine science students seek role models that reflect themselves and are looking for networking opportunities.
- > Exposure to BIPOC professionals will increase knowledge and self-efficacy of marine sciences for BIPOC students.
- > Providing a platform to increase BIPOC visibility in the field of marine research science will promote a sense of community and increase leadership and presentation skills among BIPOC researchers.
- > The work current OCEAN graduate students will lead to an increase BIPOC grad student's recruitment and engagement in order to maintain and/or expand future OCEAN work.

**EXTERNAL FACTORS**

- > Program funding is a time-bound research grant.
- > Graduate students leading the program will graduate, hence OCEAN will need new student leaders.
- > COVID-19's social impact and protocols may impact engagement.
- > 2020 presidential election results may take a toll on BIPOC participants.

This program consists of three activities a webinar series, a podcast series and informal conversations between students and the OCEAN speakers. Each activity will occur in four rounds.

In the webinar series activity, BIPOC researchers and professionals will have the opportunity to share their research with undergraduate students, graduate students and marine science academic advisors and administrators. This series will consist of four webinars that will be open to all UMass Boston (UMB) faculty, students and staff. The inputs for this activity will include obtaining the UMB zoom license, hiring an American Sign Language Interpreter, selecting 4 OCEAN speakers, selecting faculty mentors, UMB student organizations, and one graduate student organizer. In preparation for the seminars UMB faculty will mentor OCEAN speakers and assist with presentation preparation. The graduate student organizer will host each of the four seminars that will feature one OCEAN speaker each, advertise the seminars in collaboration with UMB student organizations and manage registration. The ASL interpreter will provide live translation over zoom in addition to the closed captioning during each seminar. The output of the webinar series will be four webinars featuring each of the four OCEAN speakers with an expected attendance of over 350 students. Each webinar will also be posted to YouTube for future access.

The second activity will be a series of 20-person informal conversations in which OCEAN speakers will have the opportunity to speak with UMB undergraduate students about their experiences with race, diversity, equity, and inclusion in the marine sciences. Inputs for this activity include four undergraduate student organizers, an ASL interpreter, OCEAN speakers, a UMB zoom license, and UMB student organizations. The four student organizers will host each informal conversation with each OCEAN speaker. The organizers will also be responsible for handling registration and moderating the student questions portion of the conversation. The ASL interpreter will be providing live translations in addition to closed captioning.

The third activity is a podcast series that will feature an interview with each OCEAN speaker on their professional journeys. The inputs for this activity include obtaining production equipment (microphones, editing software, etc.), recruiting four undergraduate students, recruiting a producer, and the four OCEAN speakers. The four undergraduate students will serve as the production team who will create interview scripts, set up equipment, conduct interviews with OCEAN speakers, organize filming schedules, and record intro and outro music. The producer will manage filming of podcast, edit all podcasts and upload them to selected streaming platforms. The outputs of this activity will be four podcasts, each featuring an interview with each OCEAN speaker that will be uploaded to streaming platforms available to the UMB community and general public.

For all program activities there are three short-term outcomes. The first is the development of a support network for students and OCEAN speakers that include mentorship and role models through UMB staff and early career BIPOC marine science researchers and professionals. The second is an increase of leadership skills, communication skills and marine science knowledge among OCEAN speakers and student participants. The third is an increase in self-efficacy among BIPOC marine science students. For all activities the long-term outcome is an increase in BIPOC presence in the marine science field, increased visibility of the work of BIPOC in marine science and increased support.

## **Evaluation Purpose**

To address the inability to recruit, retain, and promote Black, Indigenous, People of Color (BIPOC), and to support BIPOC marine researchers and professionals in advancing their careers, OCEAN was founded to promote inclusion and accessibility in the field OCEAN by organizing a virtual seminar series showcasing early-career BIPOC scientists and professionals to document their work and increase their visibility to their field and public. The purpose of this evaluation is to improve the effectiveness of the program by considering whether connections are being made between program participants and whether their expectations of the program were met.

The program is currently at the process implementation stage of development; hence the focus of our process evaluation will be on assessing formative and process measures, including the number and type of participants reached and to determine the satisfaction of these participants within the program. There are several process evaluation questions worth asking to determine whether the program is operating as planned at each activity level, focusing on the quality of the activities, the implementation quality, capture of target audience and activity completion:

### **Activity 1:**

- 1) Were the seminars successfully advertised?
- 2) How was zoom video and sound quality?
- 3) How did participants enjoy the zoom seminars?
- 4) Were seminars held at accessible times for students and staff?
- 5) Were all necessary personnel recruited for the seminar?
- 6) Were BIPOC marine science students in attendance?

### **Activity 2:**

- 1) What was the demand for registration?
- 2) How did students enjoy the format of the informal conversations?
- 3) How many times were students sent invite reminders with login credentials for informal conversations?
- 4) Were BIPOC marine science students in attendance?

### **Activity 3:**

- 1) How many podcasts were produced and uploaded to streaming platforms?
- 2) How did student listeners feel about the length of the podcasts?
- 3) How many streaming platforms were podcasts uploaded to?
- 4) What was the producer's experience setting up equipment/working with equipment?

## **Evaluation Design**

This evaluation will be a concurrent mixed-methods design. Since the program is in the implementation stage, this evaluation will be focusing on assessing formative and process measures. The program consists of three activities which are all implemented together in four cycles between the months of September and March. Data is intended to be collected before implementation, after each cycle of activities (September, November, January, and March) and at the end of the program in June. Evaluation questions will be focusing on the quality of the activities, the implementation quality, capture of target audience and activity completion.

## **Data Collection Methods and Data Analysis Plan**

### ***Activity 1: Seminar Methods Grid (appendix figure 1.1)***

The main evaluation focuses for the seminars are accessibility to students, zoom quality, target population reach, advertisement and recruitment of personnel. The data for this activity will be collected through MailChimp, post-program surveys, two focus groups, registration forms and an activity checklist. MailChimp is a marketing platform that will be used for collection of advertisement effectiveness and population reach data. The student organizers will be responsible for collecting all MailChimp and registration form data prior to the start of each seminar. This data will then be submitted to the OCEAN team. The OCEAN team will be responsible for collecting post-program survey data and activity checklist data after each seminar. The OCEAN team will also be conducting focus groups and will collect data from the focus groups after the first and last seminar.

### ***Activity 2: Informal Conversations Methods Grid (appendix figure 1.2)***

The main evaluation focuses for the informal conversations are the target population reach, information exchange, activity relevance, and meeting attendance capacity. The data for this activity will be collected through zoom analytics, registration forms, and focus groups. To facilitate data collection, the applications Mail Chimp and Google Forms will be used. MailChimp, a marketing platform, will be used for data collection because its insight feature which compiles data necessary for analysis of advertisement effectiveness and population reach. Google Forms is a platform used for the creation of surveys, allowing for efficient data collection when working with larger audiences. This platform will be useful to produce the registration forms. Student organizers will be responsible for collecting registration form data, Mailchimp data and zoom analytics after each informal conversation. This data will be submitted to OCEAN team. The OCEAN team will be conducting the focus groups and will be responsible for collecting that data after the first informal conversation and the last informal conversation.

### ***Activity 3: Podcasts Methods Grid (appendix figure 1.3)***

The main evaluation focuses for the podcasts are the podcast production team, and podcast quality and accessibility, which will be measured through podcast checklists and focus groups. The OCEAN Team will be responsible for creating the Podcast checklists and conducting the focus groups while the Production team will in charge of ensuring that the podcast is accessible to the general public and students on as many streaming platforms possible. The podcast checklist, assessing both the production team capacity and podcast accessibility will be distributed prior to each podcast recording date while the focus groups will be conducted after the release of the first podcast and the last podcast.

## **Sampling Strategy**

The design for this evaluation will be to collect data from the entire participant cohort. The OCEAN team is interested in obtaining all possible data and giving all participants the opportunity to provide qualitative and quantitative information through surveys. Information will be gathered from three groups throughout the program duration: OCEAN investigators, student attendees and student organizers/OCEAN speakers/producers.



## **Entrée**

The final data will be gathered from multiple sources: focus groups, surveys, activity checklists, zoom analytics, email trackers and registration forms. The focus group data, surveys and activity checklist data will be collected by the OCEAN team. The zoom analytics, email tracking and registration form data will be collected by the student organizers. All data will be sent to the OCEAN team. If the OCEAN team decides to hire an external evaluator, the data would be transferred to the evaluator at the end of each activity cycle for analysis. If an external evaluator is not hired the OCEAN team will assess the data at the end of each activity cycle.

## **Dissemination Plan and Use of Findings**

The purpose of a dissemination plan is to summarize and communicate findings of the evaluation plan to relevant stakeholders in a method that will maximize their use of the findings to further their goals. We will distribute the information to key stakeholders using various methods. The primary forms of dissemination we plan to use are visual presentations and written products.

### *Online Forum*

Once results have been analyzed, a final evaluation report will be presented to Kelly Luis, the Principle Investigator, and her team of co-investigators via video conference to present evaluation findings in greater detail to program leaders and provide a forum to solicit feedback. This will also be an opportunity to discuss any potential changes or improvements to the program moving forward.

### *Visual Presentation*

A video presentation will be produced to deliver to the findings primarily to the OCEAN staff and UMB. A secondary audience could potentially be interested students and other affiliated organizations, along with interested researchers and professionals in the field of marine research in Massachusetts. In addition, a formal presentation will be made by the OCEAN team at the Ecological Society of America Conference to present to scholars in the field for the purpose of sharing detailed findings of the evaluation with these professionals in marine research.

### *Written Products*

We propose several written products for our stakeholders, and other interested parties, such as the final evaluation review, a link to a summary of the final report, and a published article. The final evaluation review written by the evaluators will primarily serve the Principle and Co-Investigators, however, the link should be accessible to all interested parties via OCEAN's social media platforms. A UMB article, newsletter or brochure could also be written and distributed campus-wide and featured publicly to alumni's, relevant universities, colleges, and external collaborators.

### **Methodological Threats and Challenges**

A challenge for the program will be finding adequate and appropriate personnel to implement the tools and collect data to support findings. OCEAN is a small organization with limited funding and identifying staff with the time and capacity may be challenging. Due to the COVID-19 pandemic, program reach may also be impacted. In addition, student demographics may limit the reach of the program.

The use of surveys in this evaluation creates a challenge in that self-reported data may or may not be an accurate representation of what the participants experienced due to recall bias or survey fatigue. Additionally, the questions may be interpreted differently than intended, also impacting the reliability of these results.

With any study, there is always concern about the possibility of participant attrition. With COVID-19 and the resulting circumstances, students may not be as available to consistently partake in these events while managing school and other responsibilities. This will impact aspects of the evaluation that require qualitative input from students who have attended multiple events.

## Appendices

**Figure 1.1 - Activity 1: Seminar**

<b>Evaluation Question</b> <i>(What questions will be answered?)</i>	<b>Indicator/Performance Measure</b> <i>(What will be measured?)</i>	<b>Method of Data Collection</b> <i>(How will data be collected?)</i>	<b>Data Source</b> <i>(Who will be the source of information &amp; how will they be selected?)</i>	<b>Collection Time Point</b> <i>(When will data be collected?)</i>	<b>Responsibility</b>
Were the seminars successfully advertised?	The number of promotional emails opened, and overall attendance will measure successful advertisement.	Email tracking numbers will be compared to overall program attendance.	Mailchimp (or other mailing platform) and a sign in sheet (via Google Forms) will provide necessary participant data.	Attendance data will be collected at the beginning of each seminar.  Email Tracking data will be collected from first email sent until the start time of the program.	Student Organizers
How was zoom video and sound quality?	Positive student responses to questions about quality (such as sound, visual, etc.) will demonstrate good quality.	Post-activity survey	Attendee Self-report	Quality Assurance data will be collected the end of each seminar.	OCEAN investigators
How did participants enjoy the zoom seminars?	Positive student responses to questions about quality (such as sound, visual, etc.) will demonstrate good quality.	Post- activity survey	Attendee Self-report	Quality Assurance data will be collected the end of each seminar.	OCEAN investigators
Were seminars held at accessible times for students and staff?	Positive student responses to seminar times.	Post-event survey	Attendee Self-report	Focus groups will be held after the first seminar and the last seminar.	OCEAN investigators
Were all necessary personnel recruited for the seminar?	The number of personnel recruited compared to subjective reports of program operation/execution.	Internal checklist	Every member of the OCEAN team will report	The checklist will be distributed to the team a week prior to the seminar.  The subjective reports of program operation/execution will be collected at the end of each seminar.	OCEAN investigators
Were BIPOC marine science students in attendance?	Number of students that marked a BIPOC racial/ethnic group on demographic question of Seminar Registration form.	Seminar Registration form	Student demographics will be calculated.	The seminar registration form (link) will be distributed to attendees at the start of each seminar.	Student Organizers

**Figure 1.2 - Activity 2: Informal Conversations**

<b>Evaluation Questions</b> <i>(What questions will be answered?)</i>	<b>Indicator/Performance Measure</b> <i>(What will be measured?)</i>	<b>Method of Data Collection</b> <i>(How will data be collected?)</i>	<b>Data Source</b> <i>(Who will be the source of information &amp; how will they be selected?)</i>	<b>Collection Time Point</b> <i>(When will data be collected?)</i>	<b>Responsibility</b>
What was the demand for registration?	Event registration	Event registration form	Google Forms	Event registration will be collected from time of advertisement to start time of the event.	Student organizers
How did students enjoy the format of the informal conversations?	Positive student responses/reflections on informal conversations	Post-activity survey	Attendees	Focus group will be conducted after the release of the first informal conversation and the last informal conversation.	OCEAN team
How many times were students sent invite reminders with login credentials for informal conversations?	The number of emails sent with login information	MailChimp	Email tracker	This data will be collected from the date the first email is sent to the start of the program.	Student Organizers
Were BIPOC marine science students in attendance?	Number of students that marked a BIPOC racial/ethnic group on demographic question on registration form.	Event registration form	Registration form	Event registration will be collected from time of advertisement to start time of the event.	Student Organizers

**Figure 1.3 - Activity 3: Podcasts**

<b>Evaluation Questions</b> <i>(What questions will be answered?)</i>	<b>Indicator/Performance Measure</b> <i>(What will be measured?)</i>	<b>Method of Data Collection</b> <i>(How will data be collected?)</i>	<b>Data Source</b> <i>(Who will be the source of information &amp; how will they be selected?)</i>	<b>Collection Time Point</b> <i>(When will data be collected?)</i>	<b>Responsibility</b>
How many podcasts were produced and uploaded to streaming platforms?	Number of podcasts recorded and uploaded to streaming platforms	Internal checklist	OCEAN Team report	The podcast checklist will be distributed prior to each podcast recording date	OCEAN team
How did student listeners feel about the length of the podcasts? (Too short? Too long?)	Positive student responses/reflections on informal conversations	Post-activity survey	Attendees	Focus groups will be conducted after the release of the first podcast and the last podcast.	OCEAN investigator
How many streaming platforms were podcasts uploaded to?	Number of platforms that podcasts were uploaded to.	Internal checklist	OCEAN Team report	The podcast checklist will be distributed prior to each podcast recording date	Production team
What was the producer's experience setting up equipment/working with equipment?	Positive student responses/reflections on experience	Post-activity survey	Producer	The survey will be distributed to the producer after each podcast recording session.	OCEAN investigator

## **References**

- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Division of Nutrition, Physical Activity, and Obesity. (2011). *Developing an Effective Evaluation Plan* (Rep.). Retrieved December, 2020, from <https://www.cdc.gov/obesity/downloads/cdc-evaluation-workbook-508.pdf>
- Mertens, D. M., & Wilson, A. T. (2018). *Program Evaluation Theory and Practice: A Comprehensive Guide*. The Guilford Press, NY.